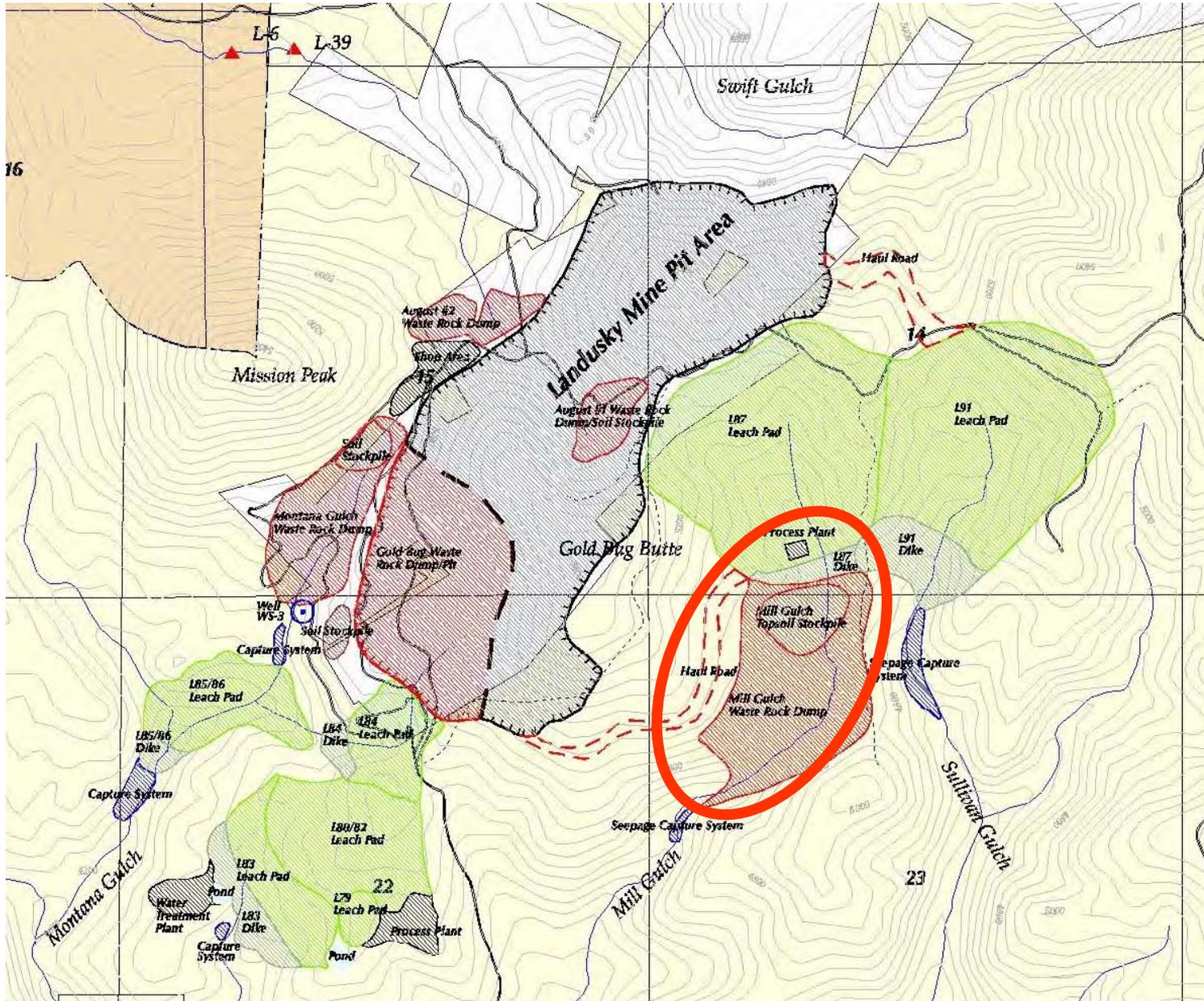


Landusky Mine Reclamation Progress

- **Reclamation Includes:**
 - Backfilling
 - Regrading/Lime Amendment
 - Barrier Placement
 - Soil Placement
 - Revegetation
 - Maintenance
- **Some Reclamation done by ZMI prior to 1998**
- **Interim Reclamation began in 1999 by DEQ and BLM after site abandonment by ZMI**
- **Over \$ 7 Million in additional reclamation funds provided by BLM and DEQ**

Landusky Mine Reclamation Mill Gulch Waste Rock Dump



Mill Gulch Waste Rock Dump Reclamation 1993 to 2005



1993. Mill Gulch waste rock dump in operation. Contains 17 million tons. Topsoil stockpile on dump top. Active L87 and L91 leach pads in background.

July 2005. Regraded, benched, and capped Mill Gulch rock dump. L87 and L91 leach pads with second year vegetation growth in background.



**Mill Gulch Waste Rock Dump
Revegetated in 1995**



**July 2001. Reclaimed Mill Gulch Waste Rock
dump. Work done by ZMI in 1994-1995.**

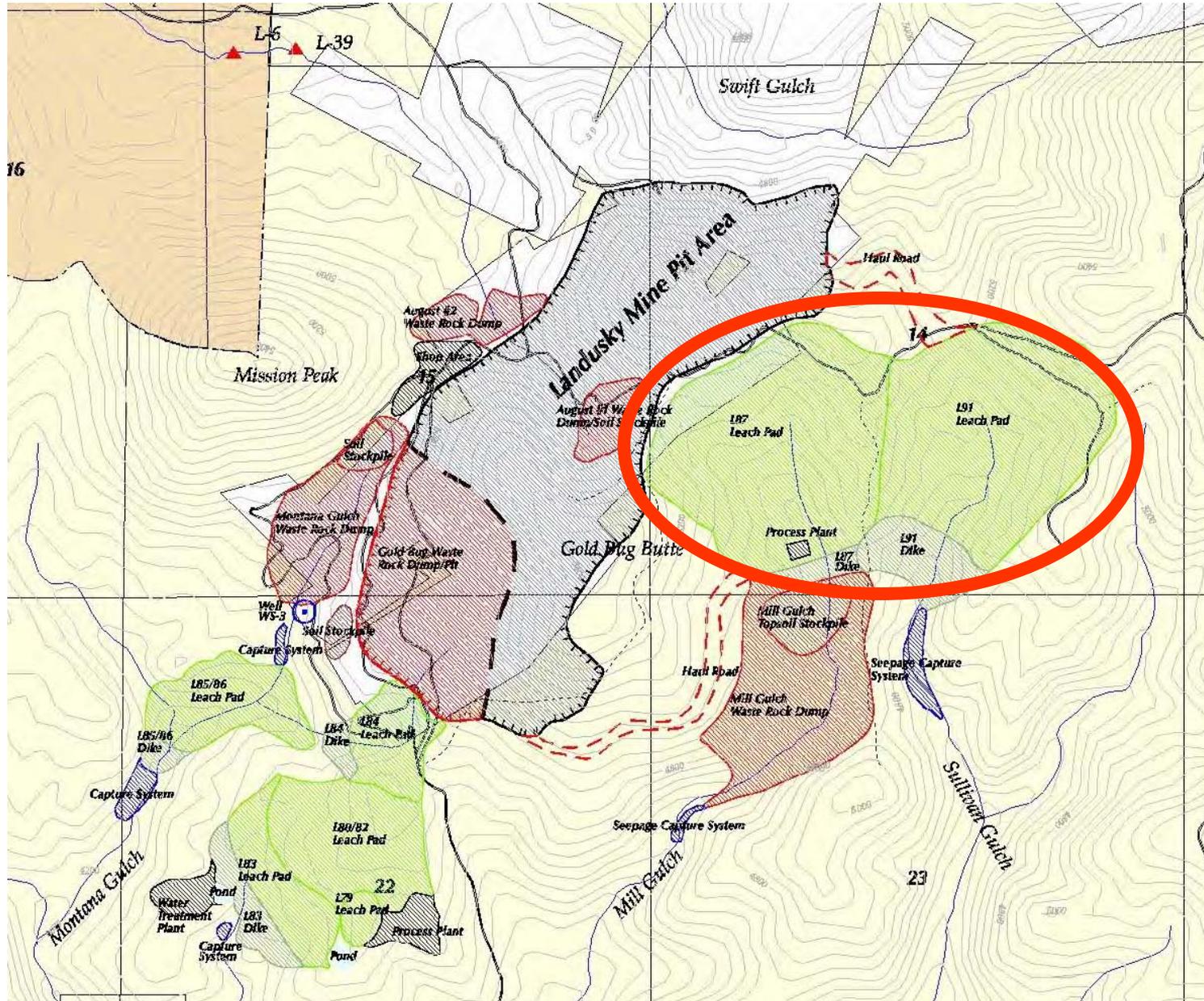
2001 7 5



**October 2005. Bighorn Sheep on reclaimed
Mill Gulch Waste Rock dump.**

OCT 17 2005

Landusky Mine Reclamation L87/91 Leach Pads





July 2000 - L87/91 Leach Pad, Landusky Mine. Contains 112 million tons of spent ore, over 150 million gallons of residual cyanide solution and covers over 200 acres.



July 2005 - L87/91 Leach Pad After regrading, topsoil placement and seeding. Second year vegetation.



For scale, the equipment in the red circle is a D10 Bulldozer Flattening the Spent Ore During Leach Pad Reclamation



Regrading the L91 leach pad. The black pipe is drip irrigation line used during leaching.

2001 5 2



2001 5 2



During regrading the slopes were flattened considerably compared to those present during leaching as exist on the right side of the photo.



Regrading progress in 2002 shows the L91 leach pad regraded with most of the L87 leach pad regrading work remaining to be completed.



June 2003, placing coversoil on the regraded leach pad surface.

Landusky Mine L87/91 Leach Pad Reclamation 2000 to 2005



**July 2000 - L87/91 Valley-Fill Leach Pads.
Contains 112 million tons of spent ore, over
150 million gallons of residual cyanide
solution and covers over 200 acres.**

**July 2005 - L87/91 Leach Pad After
regrading, topsoil placement and
seeding. Second year vegetation.**



Landusky Mine L87/91 Leach Pad Reclamation 2001 to 2005



**February 2001, L87/91 leach pad
prior to beginning reclamation.**

**June 2005, L87/91 leach pad with second
year vegetation growth. Bioreactor tanks
located on L87 pad dike to left of center.**



L87/91 Leach Pad Reclamation 2001 to 2005

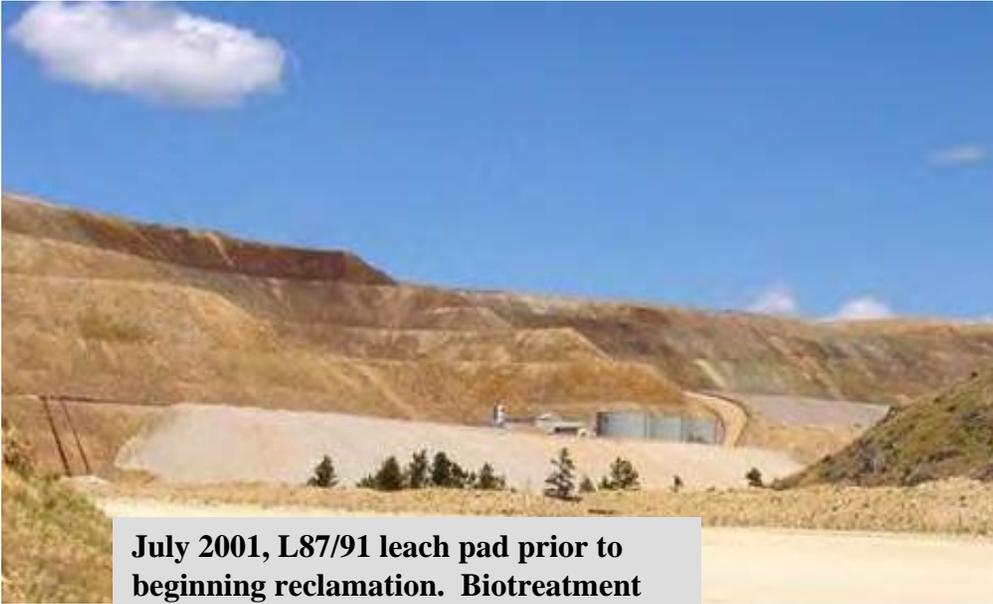


July 2005, reclaimed L87 leach pad with second years vegetation. Fort Belknap college students collect soil samples.

July 2004, L91 leach pad with first years vegetation. Heap solution pumphouse on right.



L87/91 Leach Pad Reclamation 2001 to 2005

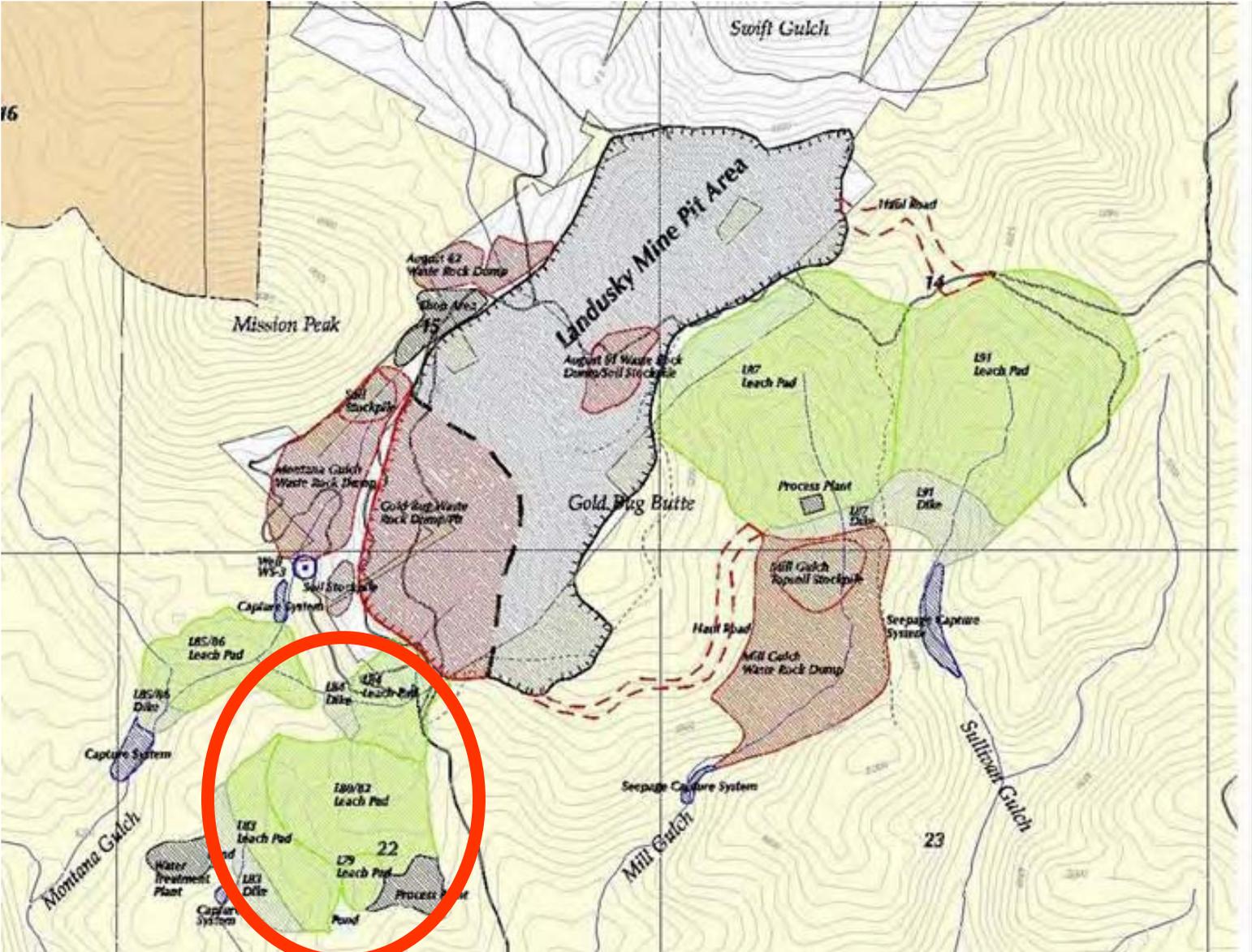


July 2001, L87/91 leach pad prior to beginning reclamation. Biotreatment plant under construction.



June 2005, L87/91 leach pad with second year vegetation. Biotreatment plant complete.

Landusky Mine Reclamation Lower Leach Pads (L79-L84)





October 1999



July 2005

Landusky Mine, Lower Leach Pad Reclamation 1999 - 2005



October 1999

July 2005



**Bighorn Sheep on Reclaimed
L84 Leach Pad**



**L84 Leach pad in late fall 2001
with first year vegetation.**



Mule deer on L84 Leach pad in late fall 2005 with five years vegetation.

Lower Leach Pad Reclamation 1999 to 2005

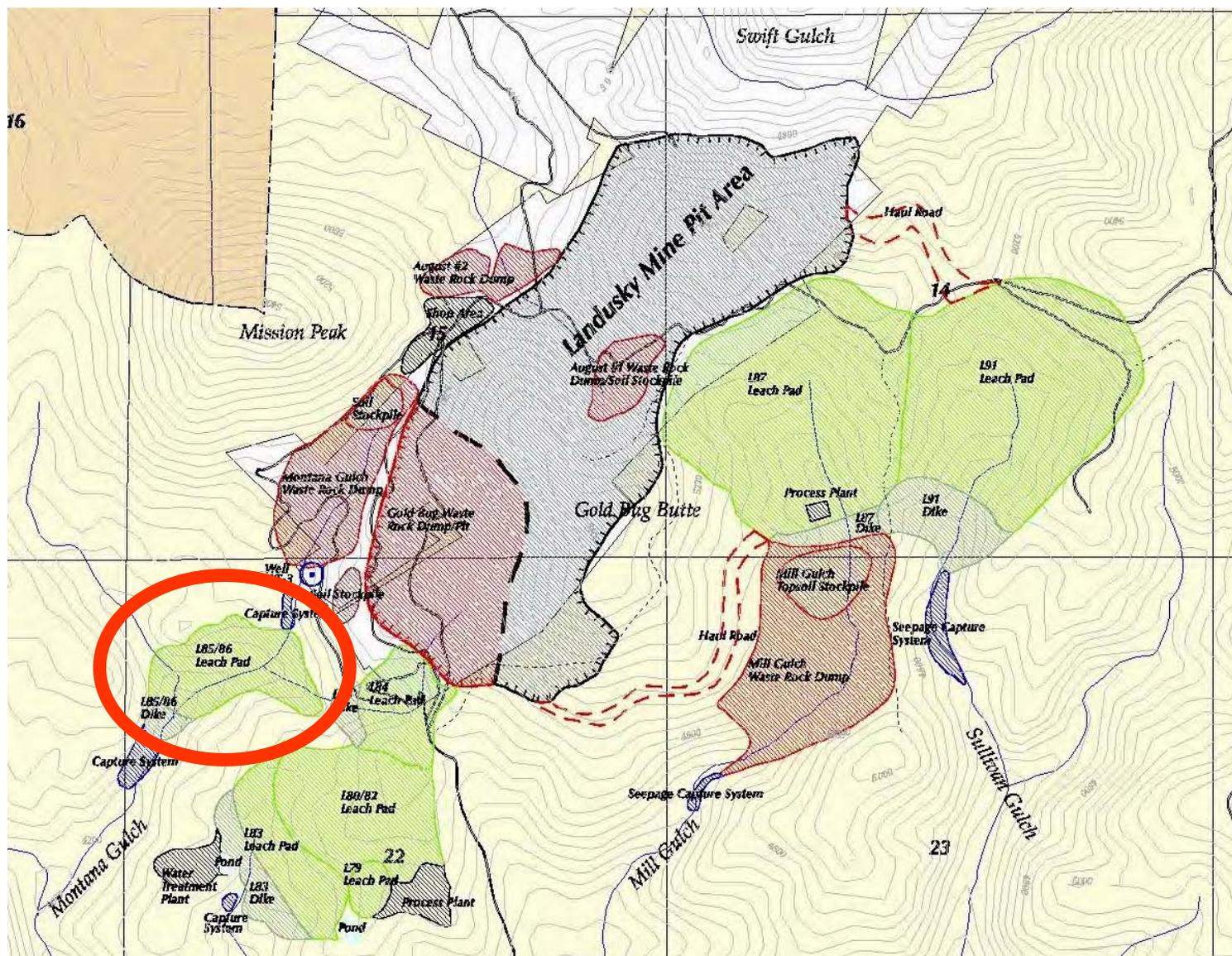


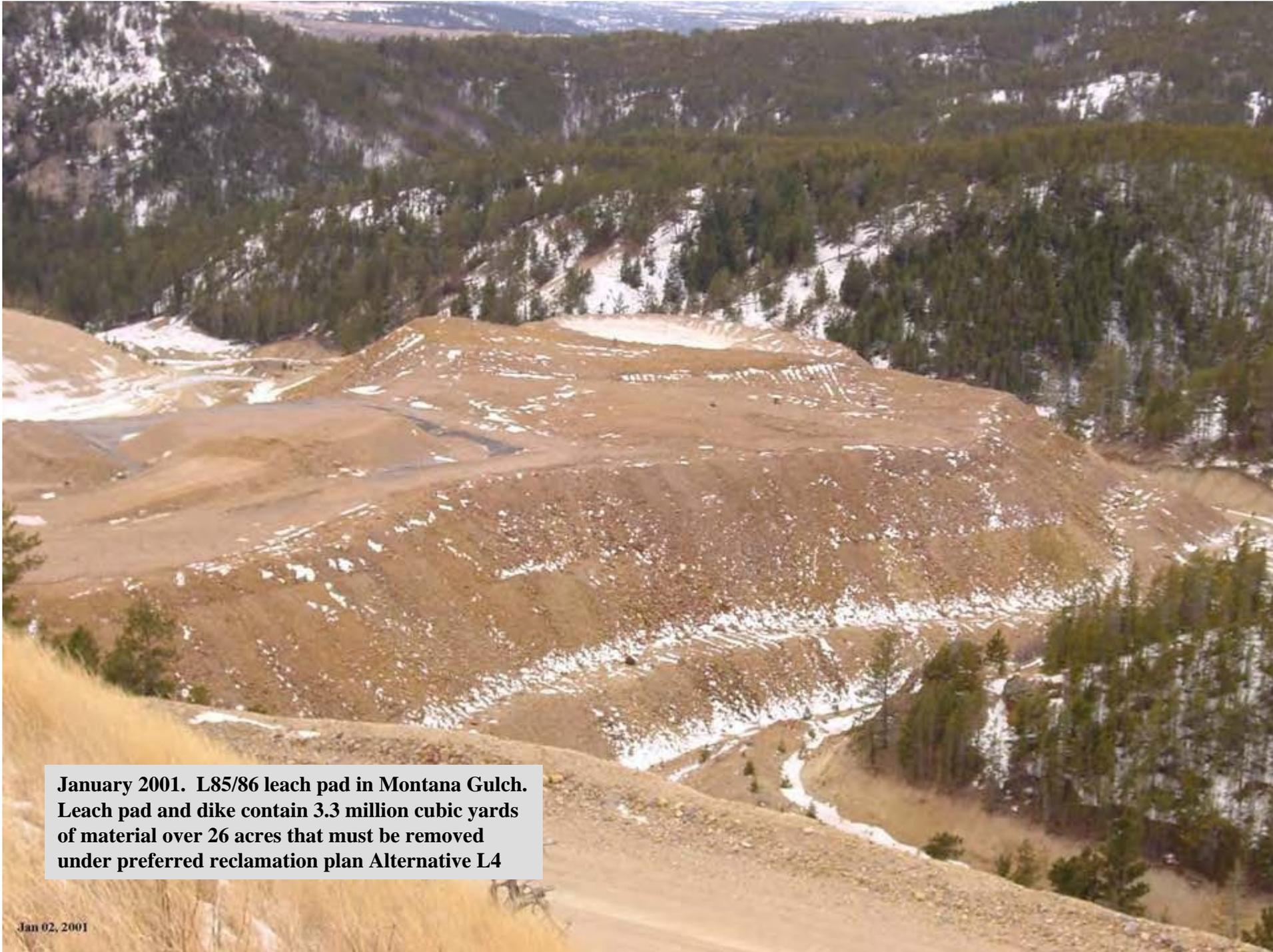
L79-84 leach pads show good vegetative cover during the summer of 2004. Reclamation in progress at the South Gold Bug pit in the background.

July 2005. Fort Belknap college students collect soil samples from the reclaimed L84 leach pad.



Landusky Mine Reclamation L85/86 Leach Pad Removal





January 2001. L85/86 leach pad in Montana Gulch. Leach pad and dike contain 3.3 million cubic yards of material over 26 acres that must be removed under preferred reclamation plan Alternative L4



May 2003. L85/86 leach pad in Montana Gulch. Upper ore lifts removed. Vertical pipes are plumbing used during leaching.

2003 5 14



July 2004. Most ore has been removed. Dark material is bentonitic shale used in leach pad liner.

2004 7 1



July 2005. Ore, leach pad liner, and dike has been removed. Coversoil spread and seeded in April. Some vegetation visible.

JUL 13 2005

L85/86 Leach Pad Removal from Montana Gulch 2002 to 2005



May 2003. L85/86 leach pad in Montana Gulch. Upper ore lifts removed.



July 2005. L85/86 leach pad removal complete. Some vegetation visible from April seeding.

Landusky Mine Reclamation L85/86 Leach Pad Removal from Montana Gulch



1993

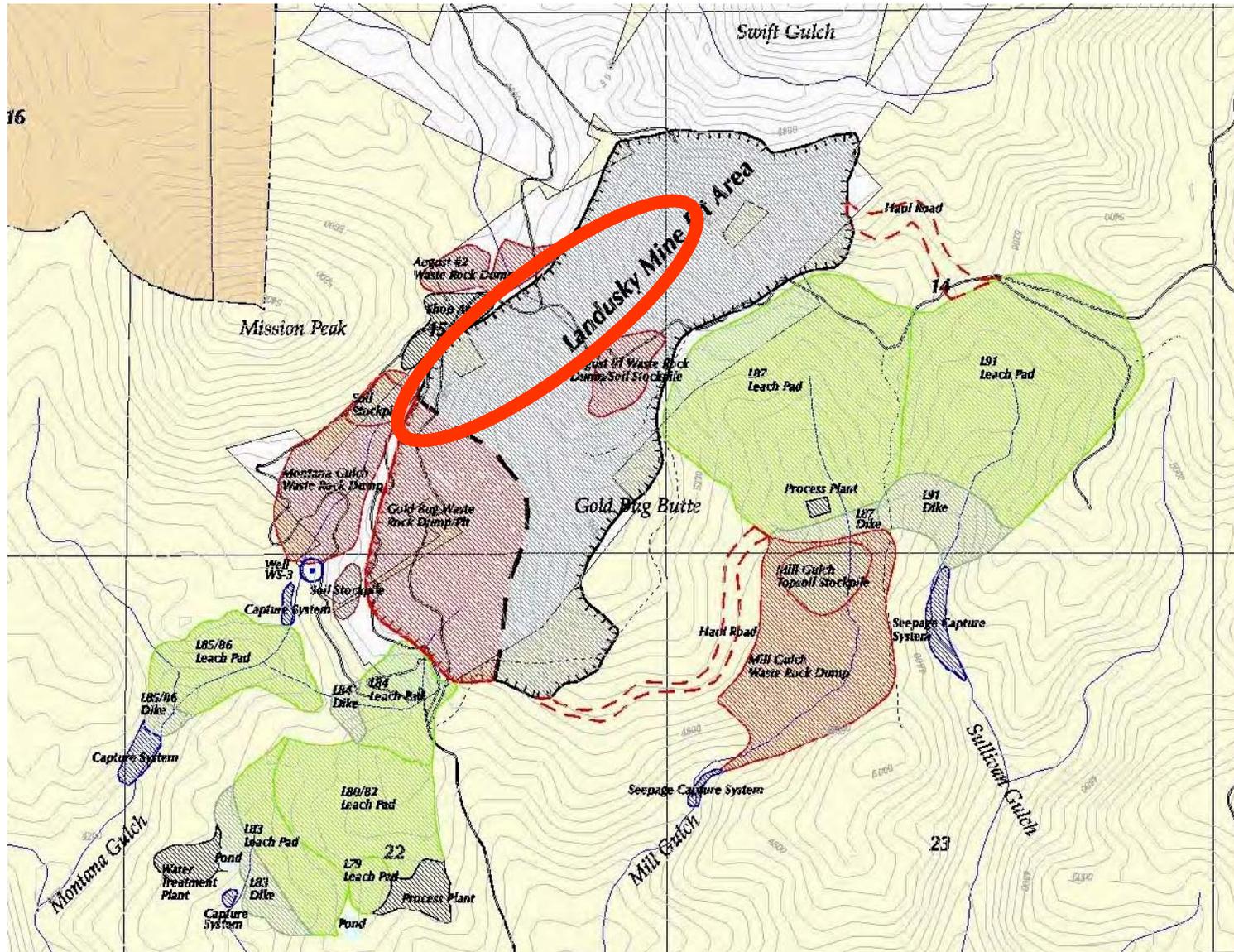


2003

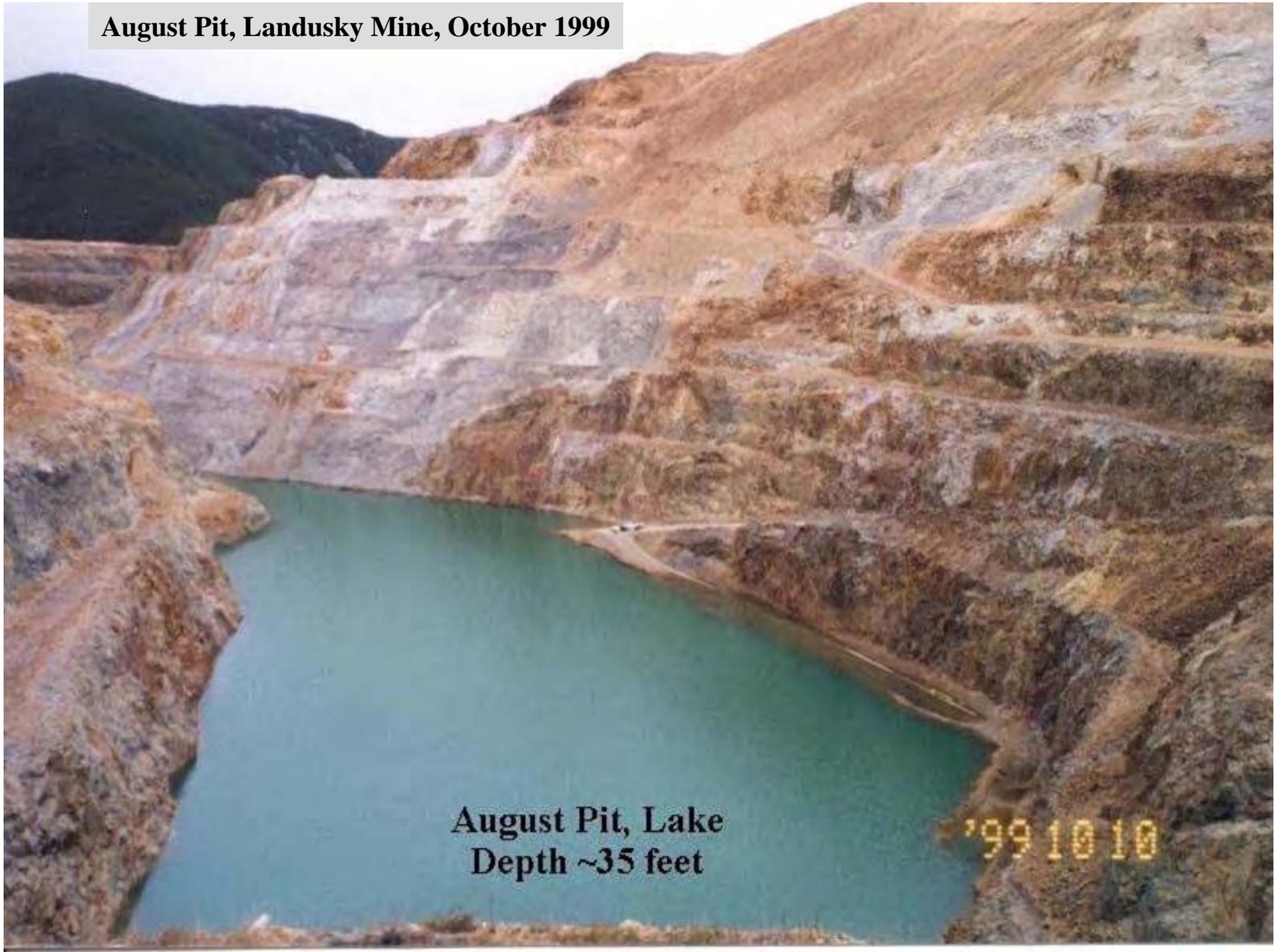


2005

Landusky Mine Reclamation August/Little Ben Mine Pit



August Pit, Landusky Mine, October 1999

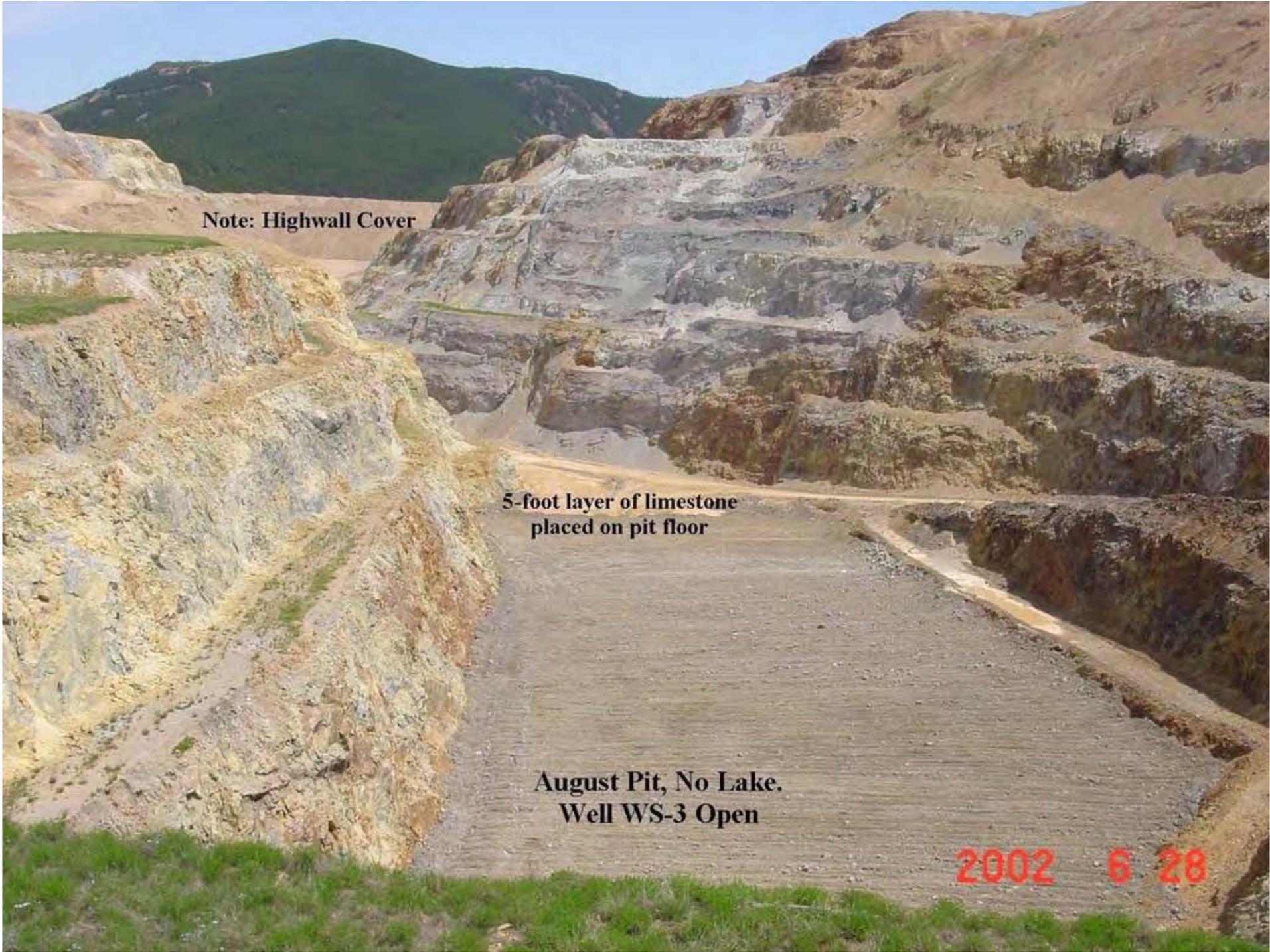


**August Pit, Lake
Depth ~35 feet**

'99 10 10

**August Pit, January 2001
Pit Lake Drained via
Groundwater Well WS-3 in
Montana Gulch**





Note: Highwall Cover

**5-foot layer of limestone
placed on pit floor**

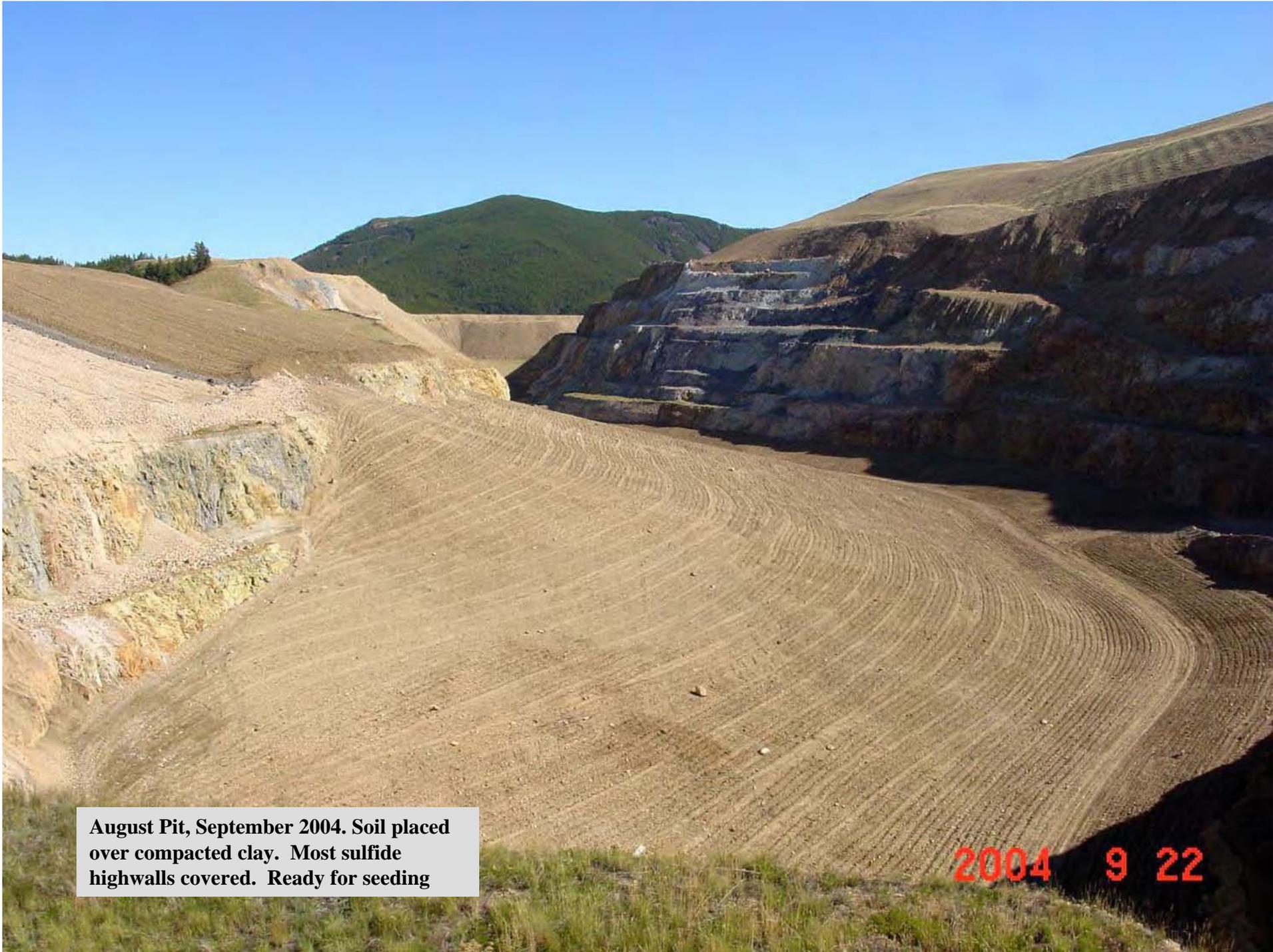
**August Pit, No Lake.
Well WS-3 Open**

2002 6 28



August Pit, July 2004. Rock from the L85/86 leach pad is backfilled in the pit. Synthetic liner placement in progress along pit floor to route runoff. Backfill is being capped with compacted clay.

2004 7 28



August Pit, September 2004. Soil placed over compacted clay. Most sulfide highwalls covered. Ready for seeding

2004 9 22



JUL 13 2005

August/Little Ben Mine Pit Reclamation 1999 to 2005

August Pit, October 1999 - Before Draining Pit Lake



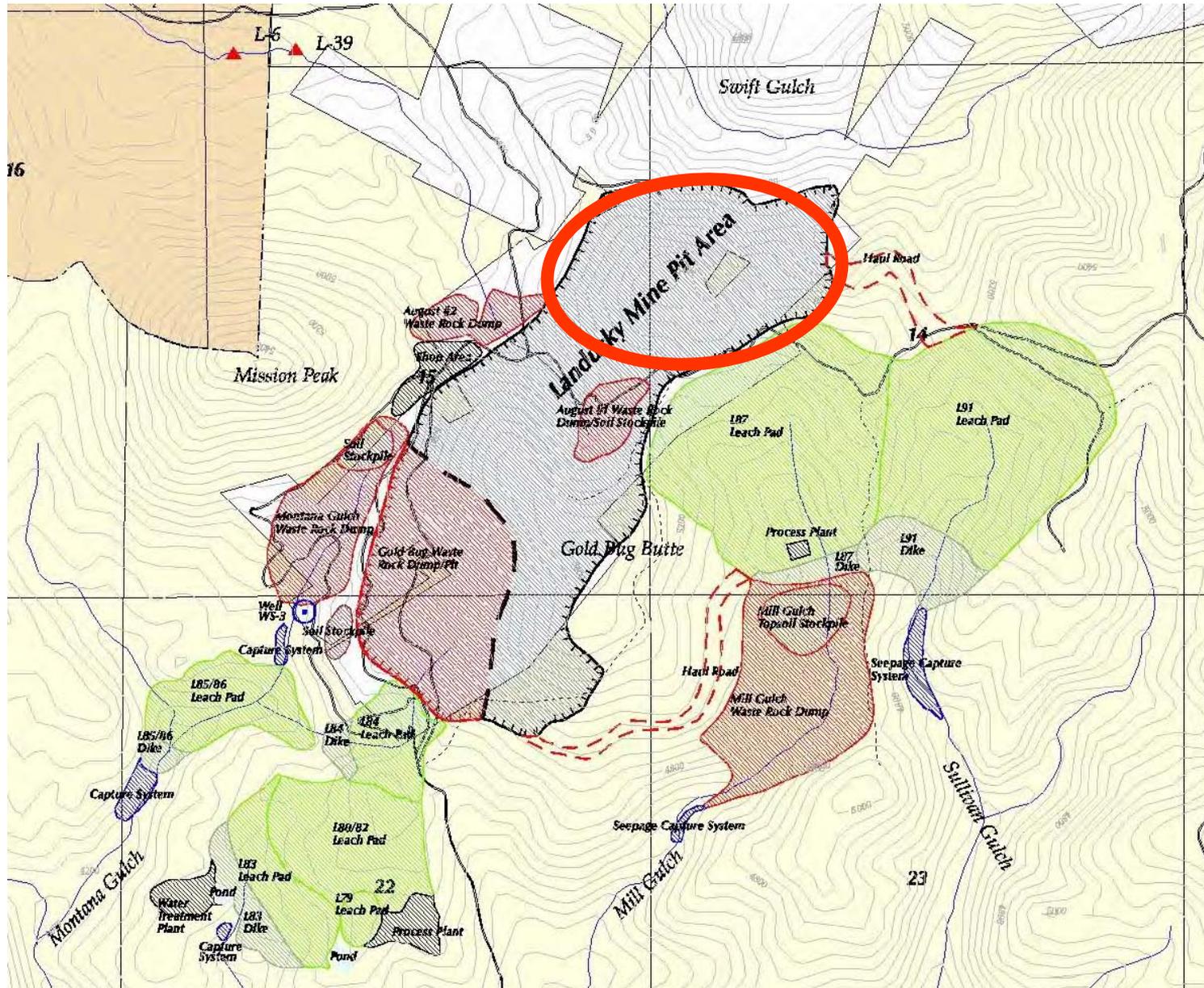
August Pit, July 2005 - Reclamation Work Complete



Note: Red line to the right in each photo shows the same pit wall elevation.

Landusky Mine Reclamation

Suprise/Queen Rose Mine Pit Reclamation



July 2000. Landusky Mine pits at the north end of the pit complex are the Queen Rose and Surprise Pits.



July 2005. Queen Rose and Surprise Pit reclaimed. Sulfides in pit highwalls covered with coarse rock. Reclaimed L87 pad on left.



November 2001. Liner Placed North of the Groundwater Divide to Limit Groundwater recharge in above the Swift Gulch watershed (upper left). Portion of L87 leach pad visible in upper right.





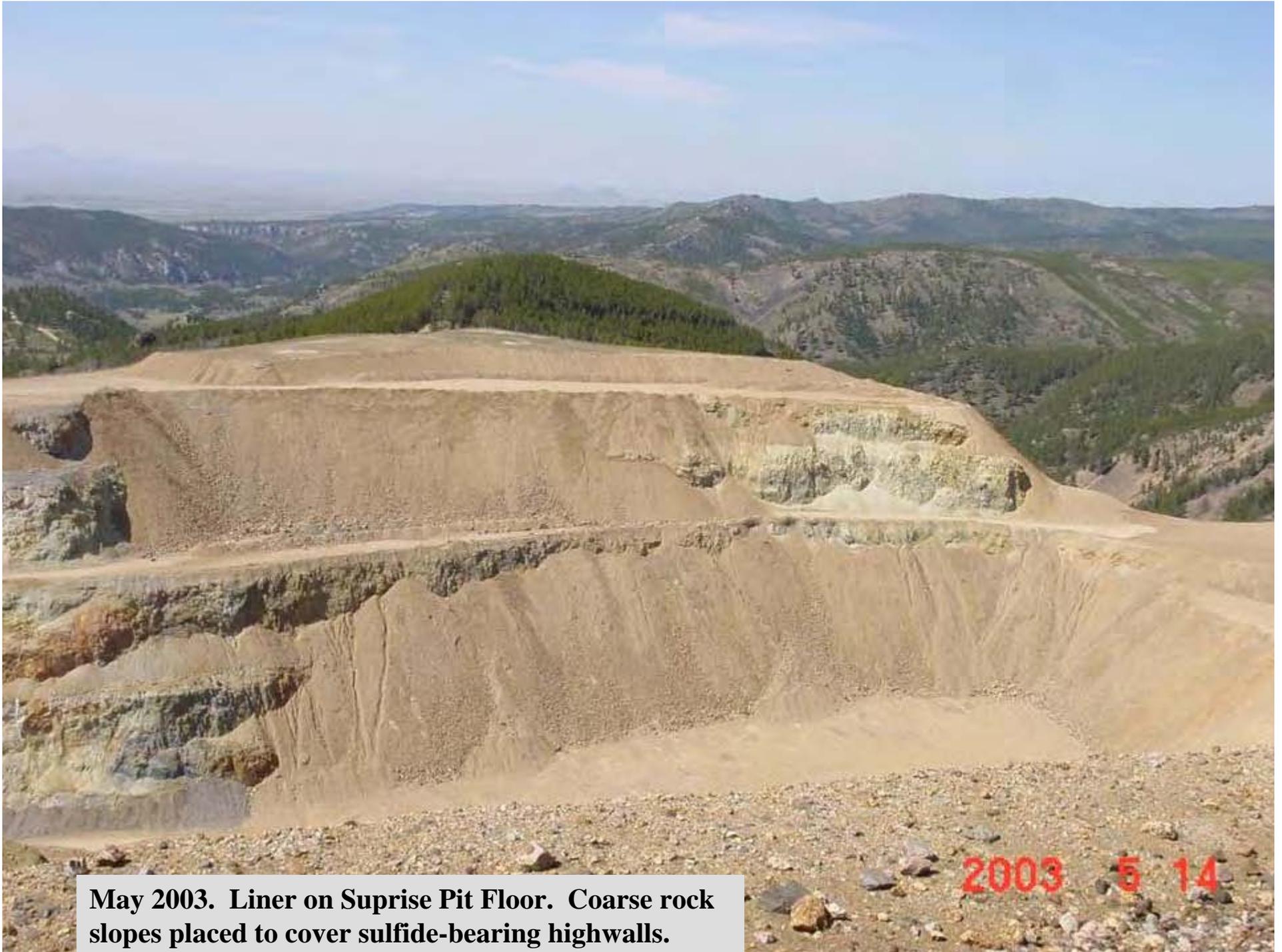
November 2001. Covering sulfide-bearing Surprise Pit highwalls with non-acid generating rock.

2001 11 14



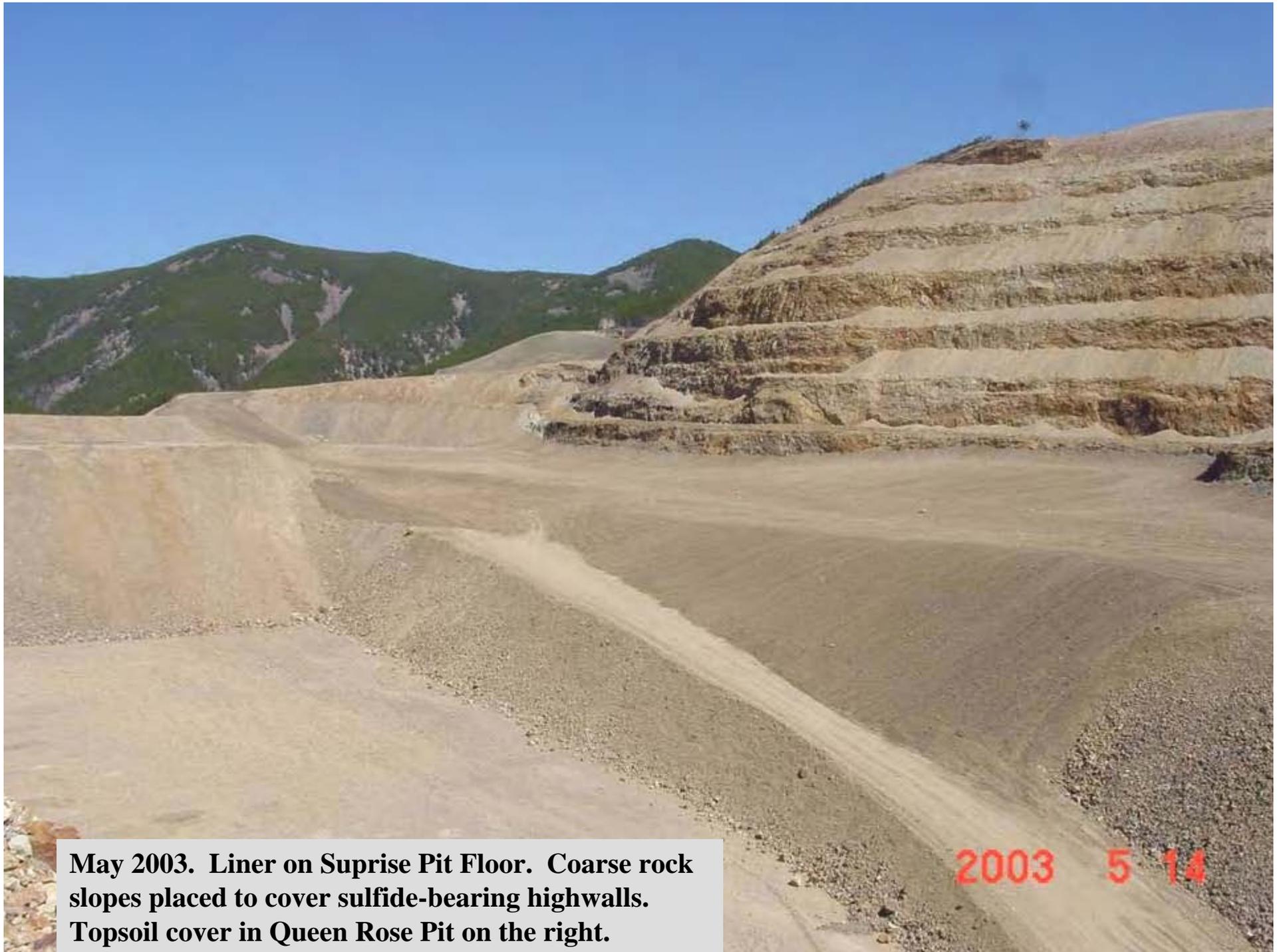
November 2001. Placing liner on Suprise Pit floor to limit potential recharge to groundwater in the Swift watershed

2001 11 14



May 2003. Liner on Surprise Pit Floor. Coarse rock slopes placed to cover sulfide-bearing highwalls.

2003 5 14

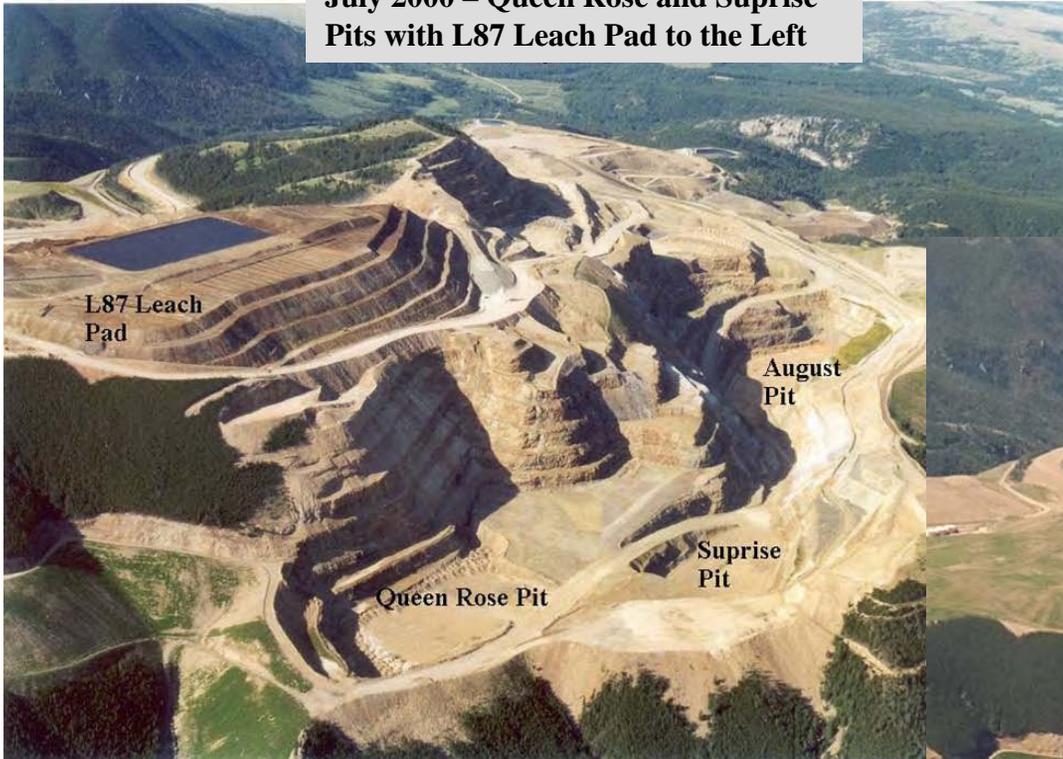


May 2003. Liner on Suprise Pit Floor. Coarse rock slopes placed to cover sulfide-bearing highwalls. Topsoil cover in Queen Rose Pit on the right.

2003 5 14

Landusky Mine Reclamation Queen Rose/Suprise Pits 2000 to 2005

July 2000 – Queen Rose and Suprise Pits with L87 Leach Pad to the Left



July 2005 - Lined and Vegetated Pit Floor;
Graded and Vegetated L87 Leach Pad

King Creek Waste Rock Dump 1991 to 2005



October 1991 King Creek waste rock before reclamation



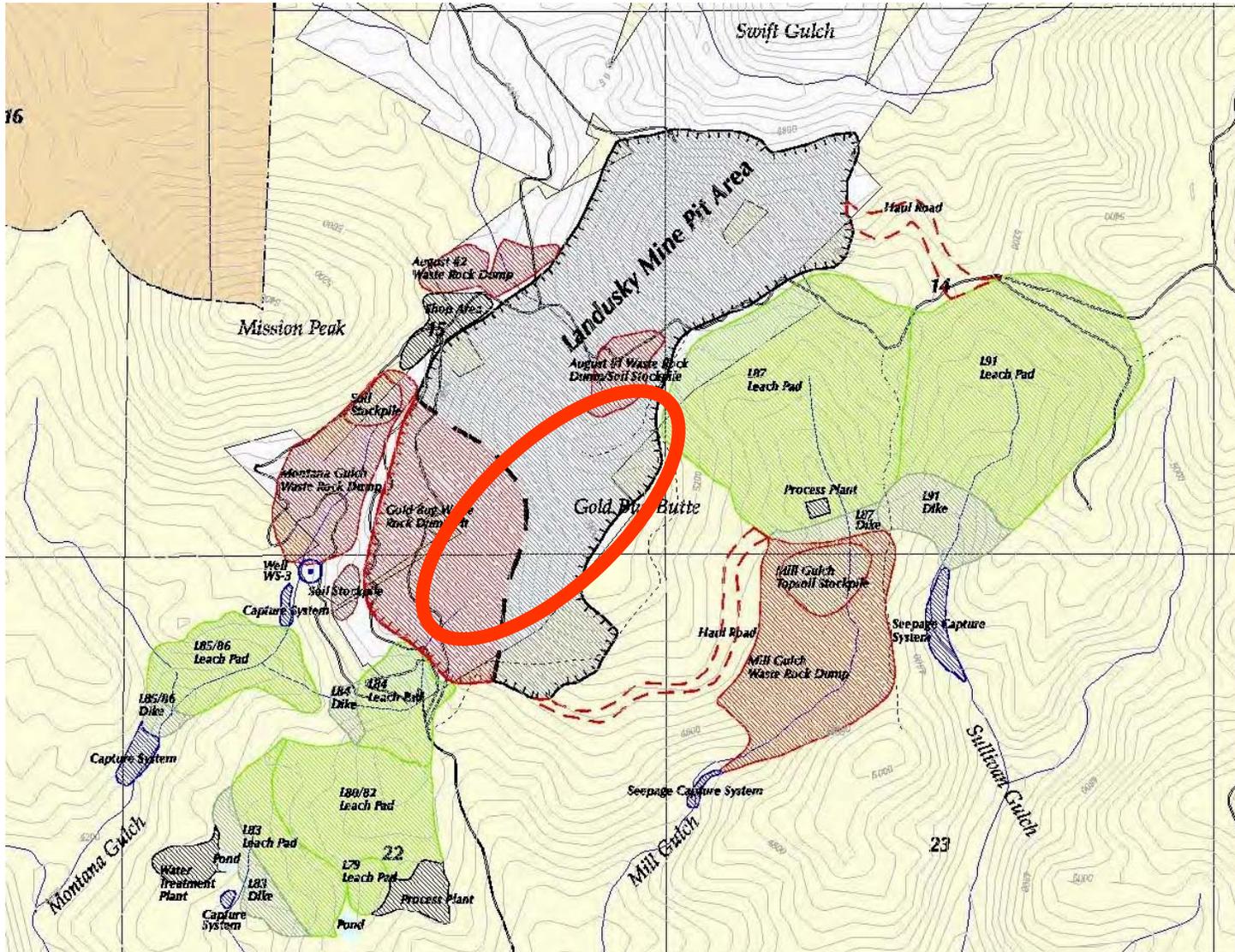
August 1992 King Creek waste rock after reclamation

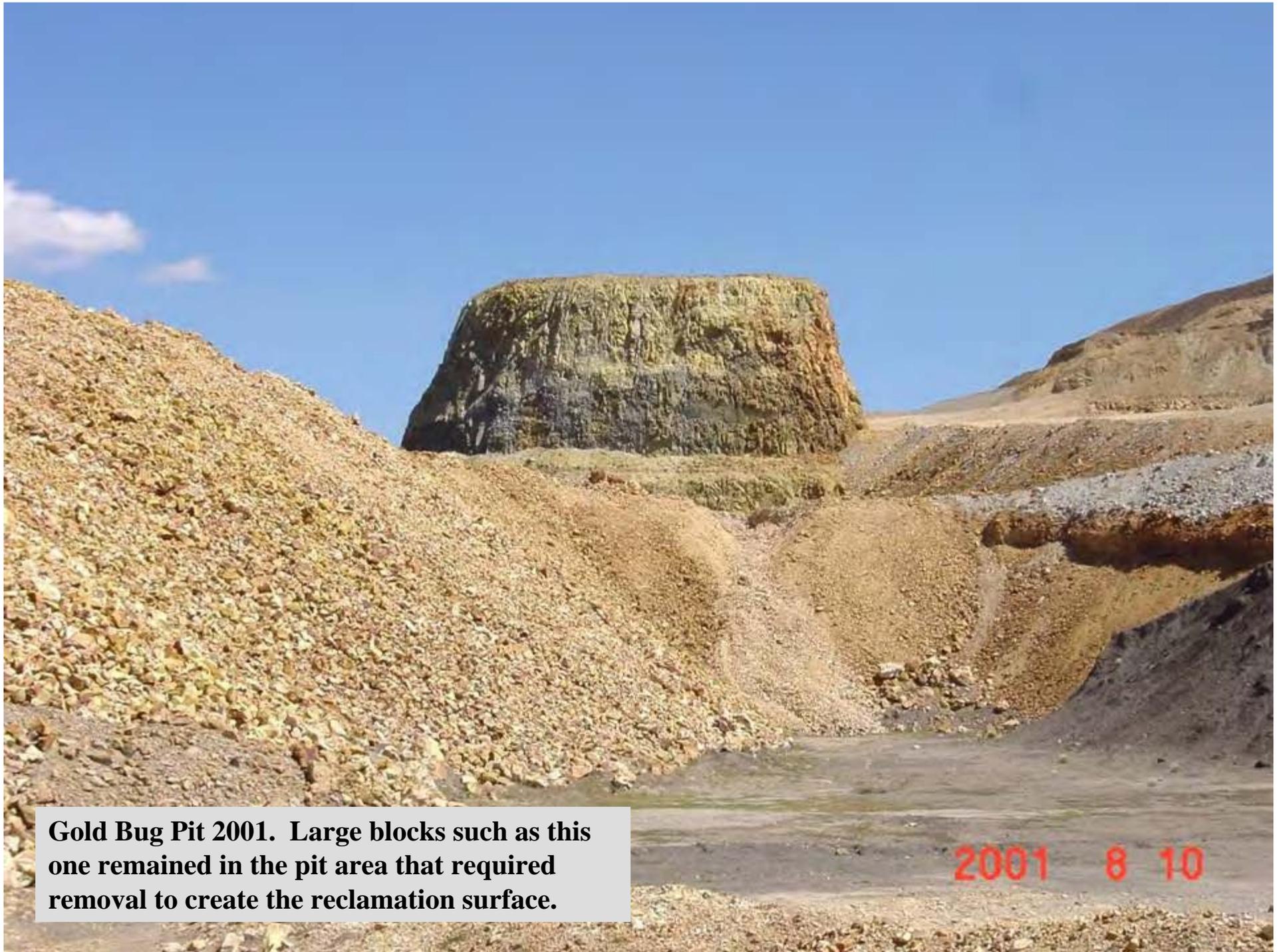


July 2005, mature trees on reclaimed waste rock repository

Landusky Mine Reclamation

Gold Bug Mine Pit Reclamation





Gold Bug Pit 2001. Large blocks such as this one remained in the pit area that required removal to create the reclamation surface.

2001 8 10



2001 10 10

Gold Bug Pit, Regrading and Backfilling



2001 11 14

Gold Bug Pit, After Regrading and Backfill Placement



Gold Bug Pit, Topsoil Placement. Note: Highwall Reduction to Scree Slope Compared to Previous Photo

2002 4 16



2003 5 14

Gold Bug Pit, First Year Revegetation



2004 7 1

Gold Bug Pit, Second Year Revegetation



JUL 13 2005

Gold Bug Pit, Third Year Revegetation

Landusky Mine Reclamation Gold Bug Pit 2001 to 2005



2001, regrading and backfilling pit.

2005, third year vegetation.



Landusky Mine 1993 to 2005



1993, Near Full Buildout



2005, Reclamation Construction Complete

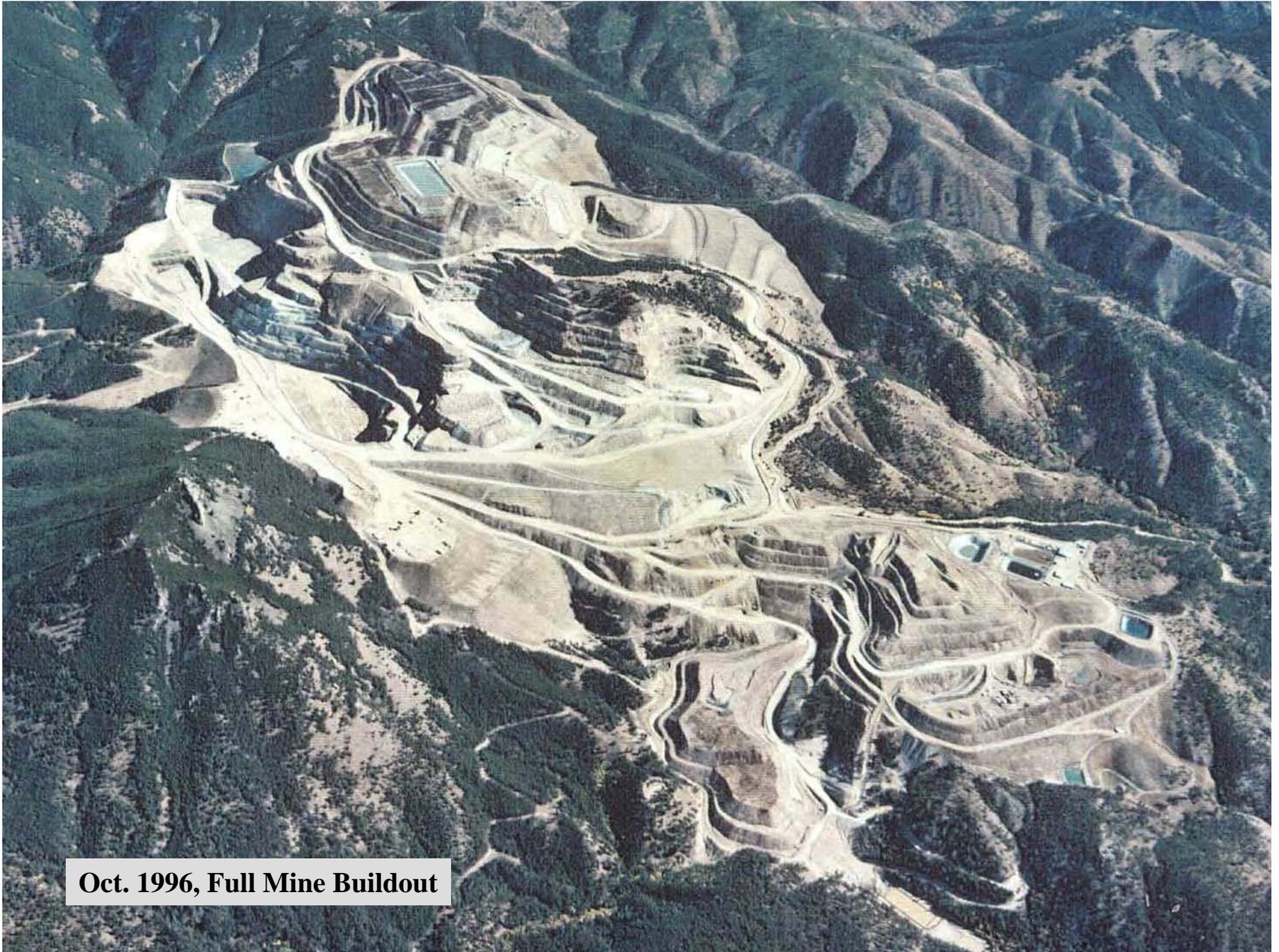
Landusky Mine 1993 to 2005



1993, Near Full Buildout



2005, Reclamation Construction Complete



Oct. 1996, Full Mine Buildout



July 2005, Reclamation Construction Complete

Landusky Mine Reclamation

1996 to 2005



October 1996, Full Mine Buildout



July 2005, Reclamation Construction Complete